ENVIRONMENTAL SITE EVALUATION

RAYMARK INDUSTRIES, INC.
MANHEIM FACILITY, PENNSYLVANIA

JUNE 15, 1995

PREPARED FOR:

RAYMARK INDUSTRIES, INC.
75 EAST MAIN STREET
STRATFORD, CONNECTICUT

PREPARED BY:

ENVIRONMENTAL LABORATORIES, INC.
142 TEMPLE STREET
NEW HAVEN, CONNECTICUT

ELI #95-524-10

ANALYTICAL TESTING-ENVIRONMENTAL ENGINEERING

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June 19, 1995

Mr. James F. Cobb
President
Raymark Industries, Inc.
75 East Main Street
Stratford, Connecticut 06497

RE: Cost Estimate for Storage Tank Impact Assessment,
Soil and Groundwater Remediation,
and Asbestos Abatement Programs
Manheim Facility, Pennsylvania
ELI #95-524-10

Dear Mr. Cobb:

Environmental Laboratories, Inc. (ELI) has completed the Environmental Site Evaluation (ESA) report (see attached) for the Raymark Industries facility leased to Universal Friction Composites located in Manheim, Pennsylvania. The findings of the ESA indicate that additional environmental work would be required to:

- Assess the environmental impacts on soil and groundwater from underground and aboveground storage tanks (USTs and ASTs) that will likely include some remediation of contaminated soil and groundwater.
- Perform asbestos abatement at the site.

Costs not included in this estimate are building demolition and landfill closure requirements.

A. Storage Tank Impact Assessment and Soil and Groundwater Remediation Program

The work associated with this program would consist of:

1. Confirming the number of USTs and ASTs currently present.
2. Conducting a walkover/reconnaissance of the property to specifically locate the tanks and evaluate the physical condition of ASTs.
3. Conduct a magnetic survey to confirm the presence of unknown USTs.
4. Recommend the appropriate remedial actions concerning the removal and/or abandonment of tanks.
5. The removal and disposal of contaminated soil.
6. The installation of monitoring wells in those areas where tanks leaked.
7. Remediation of soil and groundwater at hot spot(s).
8. Environmental engineering oversight and report preparation.

The specific tasks and estimated costs for this program are presented below and are based upon several assumptions. These assumptions are based upon limited tank and site characterization data and that the number of tanks listed with PADER is significantly less than the number identified during ELI's initial site visit as part of the ESA.

Tasks	Estimated Costs
1.0 Storage Tank Confirmation ELI will conduct a thorough review of facility files (i.e. drawings, records, etc.) to determine the number and location (and orientation, if possible) of tanks which may have been previously present and those that are currently present on-site.	$3,000
2.0 Site Walkover/Reconnaissance ELI will walk the property to confirm the exact locations (and orientation, if possible) of tanks identified during the file search in Task 1.0. ELI will look for physical evidence of USTs such as fill ports and vent pipes with a limited amount of probing.	$4,000
3.0 Magnetic Survey ELI assumes that perhaps up to eight to ten tanks may not be field identified during the site walkover (i.e. no physical evidence, tank abandoned, etc.). To determine their presence, ELI recommends that a magnetic survey be completed at those eight to ten suspected tank locations.	$10,000
4.0 Tank Removal Program and/or Abandonment ELI has recommended that most tanks should be removed due to their age (and therefore, could possibly be leaking) and because many tanks are currently not in use. Other tanks may need to be abandoned rather than removed due to their proximity to building foundations, etc. Using the information gathered during Tasks 1, 2 and 3, a site map will be prepared identifying all known tank locations. The costs associated with this task are estimated as follows:	
• Base map preparation	$2,000
• Removal of tanks	$150,000
• Backfilling of tank graves with clean fill	$8,000
• Removal and disposal of sludge (2,000 gal @ $3/gal)	$6,000
• Removal and disposal of liquid (2,000 gal @ $1.5/gal)	$3,000
• Soil sampling (4 samples/excavation x 15 excavations x $200/sample)	$12,000

Tasks	Estimated Costs
5.0 Removal and Disposal of Contaminated Soil ELI has estimated that approximately fifteen tank areas would require the removal of contaminated soils. For budget purposes, ELI has estimated up to 1,000 tons of soil will be removed and disposed at a cost of $100 per ton.	$100,000
6.0 Installation of Monitoring Wells ELI has estimated that up to nine monitoring wells may be required to assess the impact to groundwater from presumed leaking tanks. ELI has estimated four days for drilling, engineering oversight, and the collection of groundwater/soil samples for laboratory analysis. This assumption is based on two or three impacted areas.	$40,000
7.0 Remediation of Soil and Groundwater at Hot Spot(s) ELI is currently aware of at least one hot spot of contamination on-site near the solvent recovery area. ELI has assumed that this area and one other unidentified hot spot would require soil and/or groundwater remediation.	$175,000
8.0 Engineering Oversight and Report Preparation ELI has assumed up to two weeks of oversight for tank removal/abandonment and well installation. ELI will prepare a report summarizing the results of the program.	$40,000
Total Estimated Cost	$553,000

B. Asbestos Abatement

The work associated with this program would include the abatement of asbestos containing materials (ACM) throughout the facility that was identified in the ESA. These materials were classified as either surfacing materials, thermal system insulation (TSI) or miscellaneous materials (roofing material, window caulking, cloth flex connectors, ceiling tiles, ceiling tile glue, transite hoods and labtops, and flooring materials and mastics) in accordance with EPA's Asbestos Hazard Emergency Response Act (AHERA).

The specific tasks and estimated costs for this program are presented below:

Tasks	Estimated Costs
1.0 Abatement of Roofing Materials (350,000 S.F.) All roofing materials are assumed positive for asbestos.	$700,000
2.0 Abatement of Powerhouse Materials to be abated at the Powerhouse include: thermal system insulation, boiler insulation, etc.	$500,000
3.0 Abatement of Thermal System Insulation This task includes the abatement of TSI throughout the entire facility, excluding the powerhouse.	$300,000
4.0 Abatement of Miscellaneous Materials This task includes the abatement of floor tiles, ceiling tiles, mastics, etc. (excluding roofing materials) throughout the entire facility.	$200,000
5.0 Engineering This task includes project design, specifications, interfacing with regulatory agencies, procurement of abatement contractors, and coordination of the entire abatement program.	$35,000
6.0 Project Monitoring This task includes air monitoring, sampling, and management of project design and specifications.	$75,000
7.0 Laboratory Analysis This task includes the analysis of air samples for asbestos fibers.	$10,000
8.0 Report Preparation ELI will prepare a report summarizing the results of the asbestos abatement program.	$5,000
Total Estimated Cost	$1,825,000

Prior to demolition of buildings at the facility, an asbestos abatement plan needs to be prepared to conform to EPA abatement regulations. This plan would include the preparation of abatement specifications, a monitoring program and a report. These costs are included in the above cost estimate. The above abatement costs also include bagging, transport and disposal of the abated materials to an approved landfill. This estimate is based upon the issuance of a waiver by PADER allowing for the separation of ACM after demolition due to poor structural conditions of existing roofs.

The findings of the ESA report conclude that the aforementioned follow-up remedial programs are warranted. ELI has provided this cost estimate for your review. ELI suggests that you provide a minimum of $600,000 for the storage tank impact assessment and soil/groundwater remediation program, and $2,000,000 for the asbestos abatement program. If you should have any questions, please do not hesitate to contact us.

Very truly yours,

Robert G. Wasp, P.E.
President

RJD/ESK/jd
090RL

Attachment

cc: Mr. Richard J. Desrosiers - Environmental Laboratories, Inc.
Mr. Errol S. Kitt - Environmental Laboratories, Inc.

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APPENDICES

FIGURES

1.0 INTRODUCTION

Environmental Laboratories, Inc. (ELI) was contracted by Raymark Industries, Inc. (Raymark) of Stratford, Connecticut to conduct an environmental site evaluation at the Raymark Industries facility located in Manheim, Pennsylvania. The Manheim facility is currently active and is leased to Universal Friction Composites (UFC), a friction material manufacturer. In accordance with the scope of work, as defined in the contract, ELI performed the following tasks:

- Met with the former representative of BCM, Bill Fleming (currently of Fleming and Blair), at his office in Woodbury, New Jersey to discuss and review relevant site information including past studies, areas of environmental concern and regulatory history of the facility.

- Conducted a site reconnaissance of the property to make observations of existing environmental conditions. This site reconnaissance was performed to evaluate the potential for site contamination which may have resulted from the release of hazardous waste or hazardous waste constituents. In addition, conducted interviews with several Raymark employees to gain knowledge of the historical environmental conditions at the site.

- Prepared a location map of the project site from a suitable available map.

- Conducted a file search of municipal records in Manheim to review historical records regarding previous owner(s) and past uses of the property. Reviewed available building and fire department files to make note of any relevant permits, reported releases, inspections, citations or outstanding issues.

- Conducted a records search of Pennsylvania Department of Environmental Resources (PADER) files in Harrisburg, PA to review relevant documentation of regulatory involvement at the site. Copies of documents were requested and obtained, and are referenced and listed in this report.

- Reviewed the status of the landfill project on the northern parcel of the site.

- Prepared an updated report of past and current underground and aboveground storage tanks (USTs and ASTs). This inventory included information such as size, construction material, chemical contents, tightness testing, permits and registrations, formal decommissioning (if relevant) and location.

- Procured an environmental electronic database file search of the property and adjoining site for analysis within a one mile radius of the facility. The search included a listing of federal RCRA and CERCLA (RECRIS/CERCLIS) sites, as well as State and local reported releases.

- Reviewed the ongoing assessment of potential lead impacts in the water column and sediment of Doe Run raised by PADER. BCM is performing a project for Raymark to address this concern. The background information presented in this report includes the status of PADER's position, analytical data and BCM's findings to date.

- Performed an ASTM asbestos survey. Given the nature of the business and the apparent presence of asbestos, an "AHERA" asbestos survey was performed by a certified inspector meeting Federal and State of Pennsylvania certifications.

- Prepared a summary report of the data obtained in accordance with the context of applicable implementing regulations. The report includes observations and conclusions relating to the apparent environmental conditions at the site.

2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Location/Description

Raymark Industries, Inc. is located in the southeastern portion of the Manheim Borough and Penn Township in Lancaster County, Pennsylvania. The site location is shown in Figure 2-1.

As shown on the site plan in Figure 2-2, the property is divided into five separate areas, based upon usage, and is comprised of approximately ninety-four acres. Approximately forty percent of the site is developed and includes manufacturing and office space. The other sixty percent of the property includes a landfill, leased land (used for agricultural purposes) and undeveloped land.

2.2 Site Development History

The site as it generally exists today is shown in Figure 2-2. The site has been gradually developed since the early 1900's to its present state. Sanborn Maps dated 1912 (2), 1929, 1936 and 1943 were acquired and show the development of the site and uses of the facility. The Sanborn maps are included in Appendix A.

On the two Sanborn maps dated 1912, the building that was once Building 10 is shown located adjacent to Building 65, and is owned by the Edison Electric Light Company. Buildings 1, 2, and 11 are also present and are owned by the United States Asbestos Company. There is a 10,000 gallon gasoline tank located between Building 2 and Chiques Creek. The portion of the property that is now occupied by Buildings 49, 64 and 77 is vacant farm land. The portion of the property that is now occupied by the paved storage area and landfill is occupied by a nursery with several greenhouses.

On the map dated 1929, the entire area that is now the lower portion of the site is developed to nearly its present state. This portion of the site is owned by the United States Asbestos Company. There are three additional storage tanks present near the previously mentioned 10,000 gasoline tank. The tanks are now covered by a building. The three additional tanks store oil, gasoline and benzol. The portion of the site now occupied by Building 58 is owned by Atlantic Refining Company. Two storage tanks for the storage of gasoline and oil are present. The building formerly owned by the Edison Electric Light Company is now owned by U.S. Asbestos Company. Buildings 36 and 37 are in their present locations in the upper portion of the site. These buildings are owned by Anchor Packing Company, a subsidiary of U.S. Asbestos Company.

The 1936/1943 Sanborn is similar to the 1929 map. Building 38 is now present on the upper portion of the site. There is an auto repair shop and junk yard present on the site now occupied by Building 12. The site presently known as the southern manufacturing area (previously owned by U.S. Asbestos Company) is now owned by United States Asbestos Division of Raybestos-Manhattan, Inc.

2.3 Area Development History

Based on the history of the area, and a review of the Sanborn maps, it is assumed that prior to the early 1900's, the site and surrounding area were mainly used as farm land and for other agricultural purposes.

2.4 Chain-of-Title

A fifty year chain-of-title search was performed for the Raymark site. According to the title search, the site consists of ten parcels of land. The following is a list of past owners of the ten parcels. Assigned parcel numbers are not necessarily the actual parcel numbers in the town records. The chain-of-title report is included in Appendix B.

Parcel 1

Prior to 1946	Clinton and Olive Fahnestock
1946	Charles E. McCoy
1947	Paul K. Kissinger
1950	Frank H. and Adeline White
1961	Raybestos-Manhattan, Inc.

Parcel 2

Prior to 1909	Jefferson and Sophie Keiffer
1909	The Atlantic Refining Company
1943	Raybestos-Manhattan, Inc.

Parcel 3

Prior 1919	Samuel G. Keller
1919	William H. Royer
1934	Christian K. Kulp (Part)
1935	Christian K. Kulp (Part)
1942	Raybestos-Manhattan, Inc. (Part)
1950	Raybestos-Manhattan, Inc. (Part)

Parcel 4

Prior to 1922	Benjamin R. Hollinger
1922	Riley Heagy
1947	Annie and Elizabeth Heagy
1966	Raybestos-Manhattan, Inc.

Parcel 5

Prior to 1941	Harry B. Shenenberger
1941	Rufus and Ella Nissley
1960	Raybestos-Manhattan, Inc.

Parcel 6

Prior to 1916	James B. Busser
1916	Irvin Barto, George Seabold, Harry Witmyer
1939	Raymond and Emma Hollinger (Part)
1957	Raybestos-Manhattan, Inc. (Part)
1968	Raybestos-Manhattan, Inc. (Part)

Parcel 7

Prior to 1930	Cephas and Emma Hostetter
1930	Elmer G. Brubaker (Part)
1936	Elmer G. Brubaker (Part)
1942	Raybestos-Manhattan, Inc.
1947	Raybestos-Manhattan, Inc. (Part)
1956	Raybestos-Manhattan, Inc. (Part)

Parcel 8

Prior to 1930	John B. Kready
1930	John K. Weaver
1940	Raybestos-Manhattan, Inc. (Part)
1945	Benjamin and Clara Herr (Part)
1946	Raybestos-Manhattan, Inc.

Parcel 9

Prior to 1936	J. Hershey and E. Hershey
1936	George H. Scull
1944	Besse A. Scull
1947	Raybestos-Manhattan, Inc.
Prior to 1945	Jacob G. Hershey
1945	J. Charles Hershey
1969	Raybestos-Manhattan, Inc.

Parcel 10

Prior to 1951	Lawrence L. Boyd
1951	Lillian F. Boyd
1954	Raybestos-Manhattan, Inc.

2.5 Interviews

In order to gain knowledge of the historical environmental conditions at the Raymark site, ELI conducted an interview with the former representative of BCM, an environmental consultant to Raymark that performed several environmental projects at the site. In addition, during the site reconnaissance, interviews were held with several Raymark employees.

On April 6, 1995, ELI conducted a personal interview with Bill Fleming of Fleming and Blair, formerly Senior Vice President of BCM. In his previous role at BCM, Mr. Fleming was responsible for all BCM environmental activities conducted by the firm at the Manheim facility. Considering his past involvement with the site, he was a good candidate to supplement information gathered from other sources, as well as to provide insight into some of the decisions that were made during the environmental work performed at the site.

Mr. Fleming provided copies of correspondence and reports related to the Landfill Closure Plan, quarterly sampling of monitoring wells, and Doe Run investigations. The information provided by Mr. Fleming was used to supplement other information gathered during the file reviews and site reconnaissance.

At the time of ELI's site reconnaissance (see Section 4.0), seven Raymark employees were interviewed. In general, the Raymark employees were very knowledgeable of the specific manufacturing processes which they were involved with at the facility. However, the employees typically only worked on one specific process, usually within one building. Therefore, they may not have had any knowledge of other processes or occurrences in other buildings. Thus, the data collected on environmental conditions (i.e. spills, leaks, etc.) is limited. The following is a list of Raymark employees that were interviewed:

Tonya Barnhart	Herman Ramig
Donald Geib	Carl Sachs
Bruce Keefer	Jamieson Showers
Raymond Keuper	

On March 30, 1995, ELI interviewed Tonya Barnhart concerning a ruptured 275 gallon aboveground storage tank (AST) located in Building 36, which was used to store phenolic/toluene (saturant). Ms. Barnhart indicated that this AST was used in conjunction with the hand treating tank. The AST was used to temporarily store the saturant during the dripping process which was transferred from the mixing room. The AST clogged and ruptured spilling the phenolic/toluene resin contents onto the wall, floor and metal stand (the remains of the spill are still present). This rupture occurred pre-1987. Since 1987, the saturant is transferred directly to the hand treating tank.

On March 29, 1995, ELI interviewed Donald Geib who has been a Raymark employee since 1962. Prior to 1960, the old boilers were installed (around the 1940's) and were located in front of the sheeters. In the 1960's, Building 2 was used for the manufacturing of clutch facings and roll brake linings on the lower level, and wick and rope were made on the second floor. During the 1960's and 1970's, Building F19 was used for woven roll linings and woven processes. Building F19 was later removed. This area is the current location of several underground storage tanks (USTs) including Tank Nos. 001, 002, 015, 016 and 017. During the 1960's and 1970's, Building F19 was also used for the mixing of saturants (now performed in Building 36) including phenolic resin, SO5-toluene and MEK. An alcohol and phenolic resin was used in Building P3. In 1972, the main office was constructed. In 1978, the on-site landfill was closed. Mr. Geib indicated that the sludge disposed of in the landfill contained very little liquid. The sludge went through a drying or liquid removal process prior to disposal in the landfill. First, the drydust was wetted with water which was recycled. The heavier material dropped to the bottom of the collection system as a sludge. This sludge was scraped from the bottom and placed into holding containers. Once the containers were full, they were loaded into trucks and transported to the landfill for disposal. This process was ceased with the close of the landfill and the dust was automatically bagged at baghouses.

On March 28, 1995, ELI interviewed Mr. Bruce Keefer who acted as the Raymark representative while ELI inspected the facility. The information collected related to prior use and discharge locations, and the inspection of buildings. This information has been incorporated into Section 4.0. On March 30, 1995, more specific questions were discussed with Mr. Keefer related to environmental issues identified during our site reconnaissance. The two USTs marked abandoned on Raymark's Drawing Number D-3889 were used to store Thinner No. 1 (SO5-toluene). These tanks may have been removed at the time

when Buildings 35 and 40 were demolished. Sanborn maps indicated the presence of USTs and ASTs adjacent to Building 2 located in the lower facility adjacent to Chiques Creek. Mr. Keefer had no knowledge of these tanks. Also, four ASTs were once located in the same vicinity and west of Chiques Creek. At present, two of these ASTs remain and are seated in concrete cradles. These two ASTs are marked 001A and 002A. The other two tanks floated away on June 22, 1972 during the flood associated with Hurricane Agnes.

The non-contact cooling water discharge from Raymark was discussed in relation to their stormwater permit. Mr. Keefer indicated that the data was routinely collected either by himself or Mr. Barry Landers at the permitted locations. This data is typically summarized on the PADER required forms and submitted by Mr. Jamieson Showers.

Mr. Keefer also indicated that the three existing water supply wells (Nos. 1, 2 and 3) were interconnected to a larger regional subterranean water supply which he described as flowing beneath Raymark, the Krieder property and Little Spring Park. He also noted that when USTs were installed at Buildings 12 and 73, bedrock had to be excavated, and that when the bedrock was broken, groundwater flowed under artesian conditions. In addition, he said that during the construction of the boiler house (Building 56), the foundation was set into bedrock, and that this operation required four to six inch discharge pipes to de-water the excavation due to artesian groundwater conditions.

Mr. Keefer also discussed the process of solvent recovery. He said that the solvent is steamed and the resultant LNAPL flows through a weir structure into a toluene recovery tank (a UST). The product is stored in this tank and then reused. The dissolved fraction is treated by an air stripping tower. The treated water is discharged to the municipal sanitary sewer system. Mr. Keefer said that the discharge is not required to be monitored by Raymark; however, solvent odors are monitored at Manheim's treatment plant. The solvent recovery tank is monitored daily for levels and grab samples are collected. The USTs undergo yearly tank tightness tests. The solvent recovery system consisted of a carbon absorption system with steam stripping of the solvent from the carbon. The solvent is then decanted from the water/solvent mixture held in the storage tank.

On March 29, 1995, Mr. Raymond Keuper was interviewed. Mr. Keuper indicated that litharge (lead) was used heavily in the manufacturing process prior to eight years ago. Five to eight years ago, litharge was used lightly in the manufacturing process and, as of five years ago, it was not used at all. Toluene/naphtha usage was stopped in the molding area in 1973. He was not aware of the use of any wax extender or PCBs. MBTs were used and alcohols have been used in Building 74 (clutch area) since 1977. Mr. Keuper was not aware of chemical storage issues.

Mr. Keuper discussed spills or incidents at the facility which included:

- A rubber mixing spill occurred outside the door of Building 37 in the alley. This rubber cement mix was allowed to dry, harden and was then removed.

- He was not aware of spills associated with the solvent recovery process.

- A fire occurred in one solvent recovery tank which destroyed the metal screen bed and the activated carbon was replaced. The structural integrity of the tank was not damaged.

- An explosion occurred inside the front end of Building 74 when LEL levels in the oven area were exceeded.

- Two fires occurred in the pull yarn tower, one in the pre-coat section and one in the cement section.

Mr. Keuper also noted that in the lower portion of the site, graphite, normal rubber and teflon were used in the packing area. He was not aware of any known buried drums or if other containers were buried or stored in basements. With respect to the landfill, he stated that material was brought off-site to the Gibbles landfill site in Manheim. In addition, two on-site landfills exist. One landfill (oldest) was located south of Building 11 and the other (closed in 1978) was situated north of Building 67. He indicated that floor drains may have been used to discharge liquids but had no specific information concerning releases. We also discussed the area of stained soil northeast of Building 74, behind the building. This area was used for the operation of a dust collector, and for dust and material storage. Also, a storage pit was present to contain lubricant oils from the compressor along with water.

On March 30, 1995, Mr. Herman Ramig was interviewed. Mr. Ramig indicated that Mr. Keefer and Mr. Geib would be most knowledgeable of occurrences at the facility and the history of the site. He indicated that fly ash may have been disposed of at the landfill, and that the greatest potential for spills would be near solvent recovery (where the heptane is loaded) and possibly the compressor room. He was not aware of any buried drums.

On March 30, 1995, Mr. Carl Sachs was interviewed. Mr. Sachs provided more of a historical perspective which included:

- He was not aware of UST's.
- Building F20 (Building 2) was used as a maintenance paint shop, and contained two kettles for resins until the early 1950's. He did not know what happened to bad resin batches. This building was removed.
- A poly-resin made of high tung oil mix was used in 1969.
- Two resins were used to treat yarn. The resin supplier was Bakerlite. This resin was baked for flexibility.
- Building 1 had asbestos twisters/speeders on the first and second floors.
- Department P3 contained textile fiber carting machine cards that were used to prepare fibers.
- The rubber mix/resin and asbestos paper was treated in towers located in Department P3 (Building 16).
- He was aware of oven fires in 1979 and 1980.
- The landfill area was used by Raymark fire fighters to practice extinguishing fires. The fire fighters would first start solvent and pallet fires and then they would practice extinguishing these fires.
- The floors of the weaving area in Building 38 always appeared to be oily as long as eight to ten years ago. Mr. Sachs indicated that the weavers used large quantities of oil which dripped onto the floor. This oil kept the dust down. When the floors became too slippery, they were cleaned and the oil was removed. However, Mr. Sachs did not know where the oil and oily material was disposed.
- Building 36 contained a former "packing" manufacturing area where a mixture of wax-oil graphite flakes was used.
- The rear portion of Building 56 (currently Building 73) was used for the adhesive process.
- Mr. Sachs indicated that much of the lower facility was flooded in the 1972 flood and that two ASTs floated away.

On March 30, 1995, ELI interviewed Mr. Jamieson Showers. Mr. Showers indicated that during a tank tightness test on the solvent recovery tanks, a leak was detected in the plumbing, not the tank itself. Raymark hired Kim Engineering of Massachusetts to conduct environmental testing and GemChem to conduct test borings in Building 38. The data obtained from this testing indicated that a release had occurred. Mr. Showers indicated that all on-site floor drains were concreted in the 1970's. An on-site septic system is used for the guard shack only and he was not aware of any old septic systems in other areas of the site. An overflow tank constructed of brick block (located behind Building 74) is used as an overflow holding tank for the hydraulic oil associated with the water system (with synthetic additives) behind the compressor room. He indicated that the stains on the soil were related to this tank and that the tank held mostly water with little oil/grease. This liquid is pumped to the sanitary sewer. Tank No. 12 at Building 72 is strapped down due to high groundwater conditions and buoyancy; however, the tank behind Building 74 is not.

On March 28, 1995, Mr. Showers was also interviewed related to regulatory issues. Raymark has permits associated with SARA III, UST regulations and NPDES. The off-spec waste is disposed at the Lancaster County Solid Waste Management facility. The baghouse waste goes to a TSDF in West Chester, Pennsylvania. All non-hazardous waste goes to Remtech Environmental in Lewisberg, Pennsylvania (Permit #PAD667098822).

Solvents are collected by Safety Kleen (ID #NJD002182892). From the coal burning process, fly ash is processed on a wet basis and the sludge is decanted. The residual waste from bottom ash is recycled through the coal suppliers, Pine Creek Coal Company.

3.0 PREVIOUS STUDIES AND EXISTING PROGRAMS

3.1 Landfill Closure

Raymark Industries, Inc. operated a landfill on-site for over fifty years to store industrial plant waste including finishing dust, off-specification product, scrap materials and rubber cement waste. The landfill occupies approximately 10.5 acres with an estimated volume of 186,000 cubic yards. The landfill was permitted by PADER on July 14, 1977 (Permit No. 3006289) and ceased receiving waste on March 13, 1987.

Raymark submitted a landfill closure plan to PADER on April 24, 1987. The closure plan was prepared by BCM. The closure plan was revised several times between 1987 and March 1991 before a consent order and adjudication was negotiated between PADER and Raymark. A final closure plan, dated April 1992, was prepared and submitted to PADER. The closure plan was approved by PADER in July 1992.

The recommended closure alternative focused on the following:

- Isolation of landfill wastes from the atmosphere;
- Stabilization of the landfill surface to prevent erosion, airborne exposure and surface water exposure; and
- Maintenance of the landfill site geochemistry and hydrogeologic conditions to permit attenuation of contaminants in groundwater.

The recommended closure alternative was to utilize a soil cap cover over approximately 4.1 acres of the northern and western sections of the landfill. The remaining sections were to be capped with existing asphalt (4.6 acres) and new asphalt (1.2 acres).

Post closure tasks would include maintenance of the cap and continuation of the groundwater monitoring program.

The landfill was inspected by PADER on August 16, 1994. PADER noted on the Hazardous Waste Inspection Report (for TSD Facilities - Landfills) that the approved closure plan was yet to be implemented at the landfill. PADER noted exposed wastes on sections of the landfill and that the existing asphalt cap was in need of repair. PADER cited violations for non-compliance in the following areas:

- Runoff collection system not properly designated, constructed, operated and maintained.
- Facility not managed to prevent wind dispersal of hazardous waste.
- Closure and post-closure requirements not complied with.

3.2 Groundwater Monitoring

As part of the landfill closure plan, PADER requires that groundwater at the landfill be monitored on a quarterly basis. There are several monitoring wells located in and around the landfill. As part of the monitoring program, these wells are sampled and analyzed for specific parameters including pH, specific conductance, chloride, total dissolved solids (TDS), sodium, sulfate and lead. Monitoring of groundwater at the landfill has been performed since November 1981.

The quarterly sampling report dated June 9, 1993 was reviewed. This report contained historical chemical data (from 1988 to 1993) and identified chemical trends in groundwater. The chemical trends were based upon a statistical analysis using the seasonal Kendall test to determine increases or decreases in the chemical data over time. The following are the results presented in the report:

- In Well W-3, there has been a statistically significant increase in chloride, specific conductance, and total dissolved solids during the 22 quarter sampling period. These trends are statistically significant at the 95 percent confidence level.

- In Well W-4, there has been a statistically significant increase in chloride and sulfate concentrations during the 22 quarter sampling period. The increase in chloride is statistically significant at the 99 percent confidence level. Conversely, specific conductance and total dissolved solids concentrations decreased significantly during the 22 quarter sampling period. The decreasing trends are statistically significant at the 95 percent confidence level.

- In Well W-6, pH and sodium have increased significantly during the 22 quarter sampling period. The trends are statistically significant at the 95 percent confidence level.

- In Well W-7, specific conductance has increased significantly during the 22 quarter sampling period. This trend is statistically significant at the 95 percent confidence level.

- In Well W-9, there has been a statistically significant increase in chloride at the 99 percent confidence level. Specific conductance has also increased during the 22 quarter sampling period, however at the 95 percent confidence level.

- In Well W-10A, there has been a statistically significant increase in the concentrations of chloride, sulfate, and total dissolved solids concentrations during the sampling period. The increases in chloride and sulfate are statistically significant at the 99 percent confidence level.

- In Well W-10B, there has been an increase in the concentration of chloride during the 22 quarter sampling period that is statistically significant at the 95 percent confidence level.

- There has been no statistically significant change in the concentrations of the remaining compounds during the 22 quarter sample period. That is, the concentrations of these compounds in groundwater have neither increased nor decreased at a statistically significant level.

In general, during the five year sample period included in this evaluation, the concentrations of chloride in groundwater have increased significantly in five of the seven wells. Specific conductance levels have increased in three of the seven wells, total dissolved solids and sulfate concentrations have increased significantly in two of the seven wells, and pH and sodium concentrations have increased significantly in one of the seven wells. Specific conductance and total dissolved solids have decreased significantly at Well W-4 only.

The data indicated the trends listed in Table 3-1:

TABLE 3-1
CHEMICAL TRENDS IN GROUNDWATER

Well	PARAMETER						
	pH	Spec. Cond.	Chloride	TDS	Sodium	Sulfate	Lead
W-3	NC	I	I	I	NC	NC	NC
W-4	NC	D	I	D	NC	I	NC
W-6	I	NC	NC	NC	I	NC	NC
W-7	NC	I	NC	NC	NC	NC	NC
W-9	NC	I	I	NC	NC	NC	NC
W-10A	NC	NC	I	I	NC	I	NC
W-10B	NC	NC	I	NC	NC	NC	NC

Notes:

TDS = Total Dissolved Solids
NC = No Change
I = Increase
D = Decrease

In addition, the quarterly report (third) dated September 1994 was reviewed. Data from this report is presently being used by BCM to update the trend analysis through 1994. In general, this data indicates:

- Lead - not identified, results are unchanged.

- The levels of total dissolved solids (TDS) exceeded the NPDWR secondary maximum contaminant level (SMCL) of 500 mg/l at monitoring wells W-3, W-4, W-6, W-10A and W-10B. In some wells, TDS has increased in comparison to the second quarter of 1994.

- The levels of sulfate exceed the SMCL at wells W-3, W-6, W-10A and W-10B. In comparison to the second quarter of 1994, the levels of sulfate increased in some wells.

- The levels of chloride were less than the SMCL. In comparison to the second quarter of 1994, the levels of chloride were detected higher than the SMCL at some wells.

- Specific conductance increased in wells W-9 and W-10A during this quarter.

- pH was within acceptable ranges.

The historical trends and data from the third quarter of 1994 indicate that some of the monitoring parameters have increased while others have decreased. The levels indicate that monitoring should continue.

3.3 Stormwater Management

Raymark is currently under a National Pollutant Discharge Elimination System (NPDES) Permit which requires that stormwater and cooling water discharges be monitored. The permit (Permit No. 0008559) expired in November 1993 and is currently in the renewal process.

The NPDES Permit required that twelve stormwater outfalls (designated Outfalls 001 through 012) be monitored for various parameters. At present, Raymark monitors all of the outfalls for flow and pH. Raymark samples only Outfalls 004 and 005. Outfall 004 is sampled for oil and grease. Outfall 005 is sampled for 2-chlorophenol and 2-nitrophenol.

Raymark also monitors Chiques Creek daily and Doe Run Creek biweekly for temperature changes as the creeks flow past the site.

3.4 Surface Water Sampling and Monitoring

3.4.1 Doe Run Creek

Doe Run Creek is a small tributary of Chiques Creek, which runs north to south along the Raymark property to the east of the upper facility and lower landfill area. Reports on file with PADER indicate that Raymark (via BCM) sampled Doe Run Creek sediments at upstream and downstream locations of the Raymark facility on May 20, 1992. PADER also obtained and analyzed split samples from the same locations. PADER results (dry weight basis) showed that downstream sediments contained total lead concentrations five to ten times greater than upstream total lead concentrations. BCM results were presented on a wet weight basis and showed no elevated levels of total lead in the downstream samples. In a letter to BCM dated December 18, 1992, PADER questioned the wet weight reporting basis and asked for further explanation. No letter of explanation was found in the PADER file.

On April 20, 1994, BCM submitted a proposed sampling plan to PADER to re-evaluate Doe Run Creek sediments near the facility.

An August 1994 BCM draft report evaluated the Macroinvertebrate of Doe Run Creek. The results of this study indicated that lead concentrations increase along Raymark's parking lot and downstream of the drainage ditch that receives Raymark's principle discharge. However, the lead concentrations were approximately half of the levels reported by PADER in 1992. This is potentially due to sampling techniques, natural attenuation or erosion.

The benthic fauna were also evaluated in Doe Run Creek. The draft report discussion indicated that suppression of the benthic fauna was not due to the lead levels, but rather to some unknown factor which was influencing fauna suppression. BCM recommended that natural attenuation be allowed to continue versus sediment removal which could destroy important riparian vegetation.

Doe Run Creek is also monitored for temperature changes on a biweekly basis through the NPDES permit for the facility. An upstream water temperature is taken at Implement Bridge, while a downstream water temperature is taken at Railroad Bridge. The temperatures are recorded on attachments to the NPDES Discharge Monitoring Reports (DMRs) and submitted to PADER.

3.4.2 Chiques Creek

Chiques Creek is monitored daily for temperature, weekly for pH, and monthly for phenols through the NPDES permit. An upstream sample is obtained at the High Street Bridge, while a downstream sample is obtained at the Fruitville Pike Bridge. Results of temperature, pH and phenols are recorded on attachments to the DMRs and submitted to PADER.

4.0 SITE RECONNAISSANCE

ELI conducted a site walkover/reconnaissance of the property from March 28-30, 1995 in order to evaluate the environmental conditions at the site. The site reconnaissance included the assessment of the property for spills, releases, storage practices and discharges. In addition, interviews were conducted with Raymark employees to gain a historical perspective of past operations, processes and occurrences at the site. These interviews were discussed previously in Section 2.5. Also, a photograph log of the site was prepared and is included in Appendix C.

4.1 Site Layout

The layout of the property is shown on the site plan presented in Figure 2-2. For the purposes of this report, the site can be divided into five general areas designated as the Lower facility, Upper facility, Area 1, Area 2 and Area 3. These five areas are labelled on the facility plan presented in Figure 4-1, and are described as follows:

- The lower facility consists of approximately ten acres of land. The buildings in this area were constructed from the early 1910's to the late 1970's when the three floor office building (Building 77) was constructed. This portion of the facility was the main manufacturing area during the early operation of the facility and included mixing and saturation processes. USTs were also used and many of those may still be present and would be greater than twenty years old. A small area of land extended beyond Chiques Creek (to the east) and was used to store four ASTs which were mounted on concrete cradles.

- The upper facility consists of approximately twenty-five acres. The buildings in this area were constructed from the 1930/40's to the 1970's. This area includes the main landfill which was used to dispose of sludge and contained settling basins. The current solvent recovery process is located in this area.

- Area 1 consists of approximately 27.3 acres of farm land located to the south of Hostetter Road. This parcel was not walked during the reconnaissance, but visual observations and interviews indicated that this land is used for agricultural purposes. This land is currently leased.

- Area 2 consists of approximately twenty-five acres north of the landfill. This area contains wetlands and an unpaved access road is present. Site observations indicated that construction debris and fly ash were disposed of in the area just north of the wetland. Other smaller amounts of construction debris (concrete, etc) were observed.

- Area 3 consists of approximately 4.7 acres south of the facility where Doe Run Creek intersects Chiques Creek. An area of approximately two acres north of this confluence was used as a former landfill which contained settling basins/lagoons. To the south, the remaining land is leased and contains a sewer right-of-way (R.O.W.).

4.2 Site Structures

As discussed, the facility can be divided into two main areas based upon age and proximity to Township Road. Northeast of Township Road is described as the upper facility and consists of approximately eleven buildings, many interconnected. These buildings are newer in age and typically have the greatest square footage per building. This area is comprised of approximately twenty-five acres. Southwest of Township Road is defined as the lower facility and consists of the oldest buildings. This area contains approximately forty-four buildings and is comprised of approximately ten acres. Tables 4-1 and 4-2 describe the structures on the lower facility and the upper facility, respectively. The usages associated with the buildings are also listed in these tables.

TABLE 4-1 LOWER FACILITY STRUCTURES

Building Number	Approximate Date Constructed	Number Stories	Typical Usage
1	1912	2	formerly: carding, spinning and weaving departments, speeder twisters, inventory storage, pressing and molding. Currently not in use.
2	1912	2	formerly: 1912-sheet packing, rubber mixing, asbestos packing, weaving basket and shipping; 1929± sheeting asbestos, impregnating, rubber mixing, gasket making, mixing and drying; 1936/43±, various manufacturing and staging operations; 1955 not in use.

TABLE 4-1 LOWER FACILITY STRUCTURES			
Building Number	**Approximate Date Constructed**	**Number Stories**	**Typical Usage**
3	1939	3	formerly: 1912 not present; 1929± and 1936/43± preparing building; currently dead storage (motors, mill supplies), third floor was maintenance, old machines, second floor has wheelabrators.
4	1929	--	formerly: coal shed; currently laboratory/office.
5	1929	--	formerly: a hand fed coal fired boiler to 1950's; currently old drying ovens present (#1 operational, #2 not operational); also used as compressor rooms.
6	1929	--	present as small guard house.
7	1929	2	formerly: office building (1929± and 1936/43) in 1936/43±; the southerly portion was converted into laboratory testing room; currently not used.
8	---	---	formerly: compressor shed adjacent to boiler.
9	1929	2	formerly: staging of crude asbestos 1929/1936/43; currently first floor has raw material storage in bags and second floor is empty.
10	1929	1	formerly: staging of old machinery; currently building was removed and land transferred to Agway retailer.

TABLE 4-1 LOWER FACILITY STRUCTURES			
Building Number	**Approximate Date Constructed**	**Number Stories**	**Typical Usage**
11	1912	1	formerly: 1912 gaskets manufacturing, carding room and machine shop, on the first floor; weaving on the second floor, and a small office; 1929 through 1943 high pressure packing, clutch manufacturing, machine shop, box making and packing and shipping; also after 1943 was used for sheeters and solvent recovery in southwest end.
12	1929	1	formerly: hydraulic presses; currently leased to car polishing and degreasing business; all degreasing material goes to UST and hauled off-site.
13	1929	1	formerly: hose reel house; currently removed.
14	1929		initially attached to Building 34 used for staging of finished product; later referred to as Building 34.
16	1929	2	attached to Building 3; formerly used for weaving; currently used for dead storage of motors and mill supplies.
17	1929	1	asbestos storage; currently not used.
19	1929	2	attached to Building 9; formerly used for storage of finished stock; currently used for storage see Building 9.
20	---	---	water tower (not used).
21	1929	1	attached to Building 5; formerly storage; older Sanborn Maps ID Building 21 as current Building 51 which was the electric room with transformers; no transformers are currently present.

TABLE 4-1 LOWER FACILITY STRUCTURES			
Building Number	**Approximate Date Constructed**	**Number Stories**	**Typical Usage**
22	1929	1	referred to as 21 on current plans and attached to Building 5; this building was used for storage.
23/24	1929	1	formerly; clutch ring department; also used 1936/43 for baking and treating (2 ovens were present); currently removed.
25	1929	2	part of Building 1 southern end.
27	1929	1	attached to Building 10 formerly used for raw material; building no longer present.
28	1929	1	referred to as the club.
30	1929	1	formerly: part of clutch (Buildings 23 and 24); currently removed.
31	1929	1	formerly: drying room.
32	1929	1	formerly: 1929± saturating room; 1936/43± cloth-treating room added.
33	1929	1	formerly: 1929± baking room; 1936/43 baking room with 2 ovens.
34	1929	1	formerly: staging (1989); and finishing room 1936/43; currently leased to machine shop and pizza shop.
35	1929	1	formerly: gibsonite grinding and mixing; currently removed.
40	1936/43	1	formerly: impregnating room; currently removed.
41	1936/43	1	in former location of Building 1B used for resin cooking; currently removed.
44	post-1936/43	1	used for testing garage.
45/53	post-1936/43		unknown former use.

TABLE 4-1 LOWER FACILITY STRUCTURES			
Building Number	**Approximate Date Constructed**	**Number Stories**	**Typical Usage**
49	post-1936/43	1	current R&D testing equipment, rebuild clutches; present transmission oil drums and Safety Kleen self contained solvent wash.
51	1929	2	referred to previously as Building 21, transformer room/electric room.
55	1929	2	office current and past.
58	post-1936/43	4	new boiler house, coal fired.
64	post-1936/43	1	well pump house #1.
65	post-1936/43	1	attached to Building 12 leased.
77	post-1936/43	2	office building (current/past).

TABLE 4-2 UPPER FACILITY STRUCTURES			
Building Number	**Date Constructed**	**Number Stories**	**Typical Usage**
36	1929±	1	formerly: extgrs distribution; currently used for loaming operation, instrumental calibration shop, storage and finishing, mixing for impregnation, impregnation of fabric, four drying ovens.
37	1929±	1	formerly: boiler house; currently building was added and includes offices, rubber making process (rubber overflow drums), clutch facing impregnation.
38	1936/43	1	formerly: was compounding room, rubber coating; also weaving room (currently weaves storage) emulsion room.
39	post-1936/43	1	currently: used for supplies, storage and finishing, drying/aging, two 55 gallon lubricant oil drums.

TABLE 4-2 UPPER FACILITY STRUCTURES			
Building Number	Date Constructed	Number Stories	Typical Usage
43/48	post-1936/43	--	solvent recovery area.
47	post-1936/43	--	building attached to 38.
50/52/ 57/61	post-1936/43	--	former building removed, currently concrete pad.
54	post-1936/43	--	transformers.
56	post-1936/43	1	cutting, curing, die cast machinery.
66	post-1936/43	1	unknown small building.
67	post-1936/43	1	currently: 3 gas ovens, machining, drill presses, cutting to size, sanding baking, mold mixing injection molding machines.
N of 67	post-1936/43	--	hazardous waste storage shed.
70	post-1936/43	1	8 steam/oil fired ovens, hot presses, molded formed, drilled baked, material storage.
73	post-1936/43	1	grinder/screener, dust collector, rubber tape, pre-forms waxened, storage, pipe shop.
74	post-1936/43	1	13 curing ovens (gas), 1 gas incinerator (1400°), future shipping, hot presses, compressor room.

4.3 Electrical Transformers and Generators

There are several transformers located on-site which have all been transferred to the non-PCB type according to Mr. Herman Ramig. They are located northwest of Building 73, northeast of Building 54 and northeast of Building 70. Electrical lines are overhead or underground with electric manhole access ways. No information was made available concerning older transformers which may have contained PCBs. No tests were conducted for PCBs in this study.

4.4 Air Emissions

There are point source air emissions at various points throughout the facility. There are permitted emission points and fugitive dust and indoor air emissions. A detailed description of these air emission points is included in Section 5-1.

4.5 Asbestos

Asbestos is present at the facility in asbestos containing materials (ACM), as well as in raw product form.

The age of the buildings, 1910 through the late 1970's, would indicate that asbestos materials would have been typically used as part of the construction (i.e. roofing material, etc.) for that time period. The process itself used raw asbestos in the old product and it is used in specialty products today. All raw asbestos was contained in bags and was not observed loose except in the weaving machines. A detailed asbestos survey for ACM is presented in Section 9.0.

4.6 Aboveground and Underground Storage Tanks

The site contains both aboveground and underground storage tanks (ASTs and USTs) at various locations in both the upper facility and the lower facility. Most of the tanks have been registered; however, several others have not been registered. This site evaluation identified several tanks that were not registered. The registered tanks are discussed and listed in Section 7.2.3. The unregistered tanks on-site are listed in Table 4-3.

TABLE 4-3 ON-SITE UNREGISTERED TANKS

Tank Number	Location	Capacity (gallons)	Substance Stored/Status	Type
014	NW of Bldg 77	1,500	No. 2 fuel oil/active	UST
015	NE of Bldg 16	1,000	formerly ESCO/unknown	UST
016	NE of Bldg 16	unknown	formerly/abandoned without records	UST
017	NE of Bldg 16	unknown	formerly/abandoned without records	UST
018	NW of Bldg 2	1,000	1912 plan ID as gasol	UST
019	NW of Bldg 2	13,000	1929 plan ID UST as GT (same location of 1912 No. 18)	UST
020	NW of Bldg 2	12,500	1929 plan ID UST as oil tank	UST

TABLE 4-3 ON-SITE UNREGISTERED TANKS				
Tank Number	Location	Capacity (gallons)	Substance Stored/Status	Type
021	NW of Bldg 2	13,000	1929 plan ID UST as GT	UST
022	NW of Bldg 2	8,500	1929 plan ID UST as bentol; 1936/43 plan does not show this tank present	UST
023	NW of Bldg 2	10,000	1929 plan ID water tower	AST
024 (001A)	NW of Chiques Creek	9,000	Fuel oil in concrete cradle	AST
025 (002A)	NW of Chiques Creek	5,000	Fuel oil in concrete cradle	AST
026	NW of Chiques Creek	10,000	Varsol in concrete cradle	AST
027	NW of Chiques Creek	13,000	ESSO in concrete cradle	AST
028	NE of Bldg 74	250	unknown	AST
029	NE of Bldg 74	1,000	unknown	AST

The tanks summarized in Table 4-3 indicate that fourteen tanks are not registered. Tanks 026 and 027 floated from their concrete cradles during the 1972 flood and are no longer present on-site. Two ASTs, Tank 024 (001A) and Tank 025 (002A), still remain, but are listed in the PADER files as tanks removed. Tanks 015, 016 and 017 were underground but visual inspection of the ground surface did not indicate that the tanks were removed. Tanks 018, 019, 020, 021, 022 and 023 may have been abandoned; however, the personnel that were interviewed had no knowledge of the presence of these tanks.

4.7 Effluent Discharge

Non-contact cooling water and stormwater is discharged through twelve discharge points. These discharge points are permitted with PADER under NPDES Permit No. 0008559 and are monitored at regular intervals by Raymark personnel. All monitoring results are logged on the appropriate forms and submitted to PADER.

Mr. Showers indicated that all floor drains were sealed with concrete in the 1970's. Visual observation did not indicate the presence of active floor drains. Several trenches with metal covers were noted but they were not drains according to Mr. Keefer.

4.8 Stormwater Discharge

As mentioned in Section 4.7, all stormwater discharge points are permitted with PADER. A summary of stormwater management is given in Section 3.3. Several discharge points were visually inspected. The receiving waters of Doe Run Creek and Chiques Creek were not notably disturbed or discolored, and did not contain any debris associated with the discharges.

4.9 Hazardous Material Storage Areas

All hazardous materials and generated wastes are stored at a central hazardous waste storage shed which contains wastes stored in fifty-five gallon drums prior to disposal off-site. This storage shed consists of three fixed walls and an open front. The roof is covered. The floor is concrete and pitches to the rear of the shed. An approved overflow trench, designed to contain spills and prevent a release to the environment, is located along the rear wall. This trench did not appear stained.

The raw product used in the manufacturing process is stored in bags or drums on wooden pallets, typically near the manufacturing processes. For instance, in Building 36, the mixing room is near the impregnation tanks. The mixing room contains the raw product (i.e. resins, toluene, thinner, etc.) used to mix the saturants used for impregnation of product. The drums are stored properly. Some overflow is apparent in some of these areas. A more detailed file review on hazardous materials was completed and is presented in Section 7.2.2.

4.10 Surface Water

Two creeks abut the property. Doe Run Creek is located northeast of the facility buildings. Chiques Creek is located west of the facility building. Doe Run Creek flows into Chiques Creek southeast of Building 11.

4.11 Waste Materials

4.11.1 Handling and Storage

Raymark stores all raw product in the buildings in bags or in drums. These raw products are shipped from the manufacturer and stored in a dry, clean area on pallets. No broken bags or open drums were observed in the storage areas. The raw product is moved, typically on pallets, to the mixing room or near machinery if lubricant oils are required. Where possible, small hand pumps were used to withdraw the liquid raw products.

4.11.2 Disposal

All hazardous waste generated is staged at the hazardous waste storage shed for less than ninety days. On the day of the site walkover, labels on twenty-five drums in the shed indicated they were present less than the ninety day holding period. Mr. Keefer indicated that he ensures that all drums staged are removed by a licensed hauler to an approval hazardous waste disposal site. Mr. Keefer indicated that no waste was stored on-site greater than ninety days.

All dust from the manufacturing processes is automatically bagged at numerous baghouses on the exterior of the buildings. This dust is generated from the weaving process (where raw material is used) to the finishing (sanding) process. This dust is collected in one yard supersacks and disposed of off-site.

4.12 Contaminated Soils, Spills and Releases

The site reconnaissance and interviews indicate that spills and releases have occurred at the Raymark facility. These are summarized below:

- Tank tightness testing (see Section 5.3) indicated that the piping system of a 12,000 gallon toluene/heptane tank (Tank No. 006) failed. This was confirmed by interviews with employees. Raymark had testing performed to evaluate the release, but the findings of these tests were not available.

- Interviews (see 2.5) indicate that oils leaked onto floors and were not cleaned up immediately.

- The age of the non-registered and registered tanks would indicate that the life expectancies of many of these steel tanks were exceeded. If these tanks were not emptied prior to abandonment, then the potential exists for a release.

- A soil stained area was observed at the northeast end of Building 74. This appears to be associated with a holding tank (water and lubricant oil) which may have been overfilled, and an aboveground storage tank containing #2 fuel oil.

- Fly ash is disposed of on the landfill cap and was observed to be present within other construction debris (north of landfill along unpaved access way).

4.13 Lead Based Paint

A lead paint survey was not performed.

4.14 PCB's (Polychlorinated Biphenyls)

Sampling of soils or other materials for PCBs was not conducted. Raymark personnel indicated that all transformers were non-PCB type.

4.15 Landfills

Site reconnaissance and interviews with Raymark personnel indicate that two landfills were used for sludge disposal and settling basins.

- Landfill Area 1 is located in the northern portion of the site. It is a topographic high point on-site and is mostly covered by asphalt. The northern portion of the landfill slopes to a foot path. Visible product was noted on the non-asphalted slope. The pavement has settled and collects water at some locations. Some of the pavement is cracked. In the central portion, construction debris and fly ash is present on the surface. Fly ash was deposited in this area on March 29, 1995 during the on-site visit. Wooden pallets are stored at the landfill to the south. To the west of the landfill, the soil is not covered. Monitoring wells are present in and around the landfill.

- Landfill Area 2 is located in the southern portion of the facility where Doe Run Creek intersects Chiques Creek. This area was described in interviews with Raymark personnel as an area used for settling basins/lagoons. An earthen soil cover is present with vegetation.

4.16 Groundwater

During interviews with Raymark employees, three existing water supply wells (Nos. 1, 2 and 3) were identified on the site. The locations of these wells are shown on Figure 4-1. Water from these wells is used for non-contact cooling purposes.

Several groundwater monitoring wells were observed in and around the landfill on the site. These wells are routinely sampled as part of a groundwater monitoring program under the landfill closure plan. A more detailed discussion of groundwater monitoring was included in Section 3.2.

4.17 Adjacent and Surrounding Properties

Adjacent land use consists of downtown Manheim (to the west) and farm land or vacant land.

5.0 SITE REGULATORY RECORDS

5.1 Air Permits

Information on air permits was obtained at the Raymark site. This information indicated that the Raymark facility has thirteen air permits on file with PADER. These permits are summarized in Table 5-1.

TABLE 5-1 AIR PERMITS

Permit	Permit No.	Issued	Expires	Comments
Fabric Coating (Alt. Emissions Reduction) Bubble Permit	36-326-001	7/1/91	6/30/92	In renewal process. Application submitted to PADER in February 1994.
Clutch Facing Operation	36-309-091C	9/1/93	8/31/98	Modified 8/19/94. Civil Consent Order (3/4/94) for unapproved installation of a 4,800 cfm AAF fabric collector as control for the mixing preparation area. $1,000 fine.
Five Sheeter Lining Machining Operations	36-319-032	7/1/93	6/30/98	—
Eight Cop Winders	36-319-035	7/1/93	6/30/98	—
Brake Lining Finishing Operation	36-319-031B	7/1/93	6/30/98	—

TABLE 5-1 AIR PERMITS				
Permit	Permit No.	Issued	Expires	Comments
Dry Process Operation	36-319-009B	7/1/93	6/30/98	Permit is accompanied by PADER Plan Approval Determination Request dated 7/2/93, stating that the source is exempt from plan approval and permitting requirements.
Mixing, Grinding, Molding and Finishing Operations	36-319-001D	7/1/93	6/30/98	—
Four Sheeter Mills	36-318-122A	12/1/92	12/31/97	—
Pull Yarn Treating Tower	36-318-110B	1/1/93	12/31/97	—
Twelve Clutch Facing Baking Oven	36-309-092	7/1/93	6/30/98	Notice of Violation dated 12/5/94 against Universal Friction Composites for failure to operate system incinerator (air pollution control device) during oven operation. UFC responded on 12/22/94 with letter to PADER stating that better management practices will be implemented to insure future compliance.
Three Coal Fired Boilers and Associated Ash Handling System	36-302-058A	6/1/93	5/31/98	—
Scrap Pulverization System	36-309-089	1/3/94	6/30/98	—
Crusher and Extruder	36-309-090	7/1/93	6/30/98	—

VOC Emissions

A Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT) proposal dated December 1994 was prepared by Spotts, Stevens and McCoy, Inc. for Universal Friction Composites (UFC) in response to federal regulations. UFC is proposing consolidation of processes to limit and better control VOC emissions from the facility. The consolidation process is scheduled to begin in 1997. The federal mandate for implementation of the RACT proposal is May 31, 1995.

Toxic Chemical Release Inventory Reporting

Under Section 3013, Title III of the Superfund Amendments and Reauthorization Act (SARA), Raymark Friction Company reported the release of seven chemicals on EPA Form R, Toxic Chemical Release Inventory Reporting Forms dated June 22, 1994. The seven chemicals and total reported releases are summarized below:

TABLE 5-2 CHEMICAL RELEASES

Chemical Name	Fugitive or Non-point Air Emissions (lbs/yr)	Stack or Point Air Emissions (lbs/yr)
Phenol	3,100	13,600
Toluene	200,000	450,000
Xylene (mixed isomer)	500-999	18,600
Copper	11-499	11-499
Asbestos (friable)	1-10	11-499
Barium Compounds	11-499	500-999
Zinc Compounds	11-499	11-499

The facility's Toxic Release Inventory (TRI) ID No. is 17545RYMRK123ES.

Toxic Chemical Release Inventory Reporting Forms are due annually. According to site personnel, the latest report is being prepared.

5.2 Hazardous Waste

Raymark records indicate that hazardous materials are generated on-site and shipped off-site as hazardous waste. Quarterly hazardous waste reports are due to PADER each quarter. According to Raymark site personnel, quarterly reports have been filed every quarter with no significant changes to the June 30, 1993 report. More detailed information on hazardous waste is discussed in Section 7.2.2.

5.3 Storage Tanks

Maps showing the locations of aboveground and underground storage tanks were obtained from files at the site. A facility plan showing tank locations is included as Figure 4-1. In addition, PADER tank registration forms were present at the site and were reviewed. More detailed information related to storage tanks is included in Sections 7.1.1 and 7.2.3.

In addition, tank tightness testing records found on file at the site are summarized in Table 5-3. Tightness testing in 1990 was done by Hunter Environmental Services, Inc using a pressure test method. Tightness testing in 1994 was done by Tracer Research Corporation using an external vapor detection method.

TABLE 5-3 TANK TIGHTNESS TESTS

Tank No.	Capacity (gallons)	Testing Date and Results			
		2/90	3/90	7/90	8/94
001	8,000	--	--	T	T
002	12,000	T	--	T	T
003	12,000	--	--	--	T
003A	550	--	--	--	--
004	1,000	T	--	T	T
005	9,925	--	T	T	T
006	12,000	--	PF	T	T
007	12,000	--	T	T	T
008	20,000	--	--	--	T
009	8,000	T	--	--	T
010	8,000	--	--	--	T
011	20,000	--	--	--	T
012	25,000	--	--	--	T
013	2,000	--	--	--	--

Notes:

T = Tight
PF = Pipe Failure
Blank = No record of testing

5.4 Waste Handling/Disposal

Raymark Friction Company is required to submit a Generator's Residual Waste Biennial Report every two years. The last report submitted to PADER was dated March 1, 1993. The following wastes were reported shipped off-site for disposal/recycling:

TABLE 5-4 RESIDUAL WASTE DISPOSAL/RECYCLING

Waste Description	Receiving Facility	Quantity (Tons)
Processing scrap and off-spec product from manufacture of friction materials	LCSWMA - Frey Farm Landfill Conestoga, PA Fac. ID #: 101389	325
Waste yarn and cloth from processing and cleaning	Same as above	34
Piping, scrap steel, etc from maintenance activities	Dixon Recyclers Lebanon, PA Fac. ID #: unpermitted	28
Empty fifty-five gallon steel drums	Samuel S. Miller and Son Lancaster, PA Fac. ID #: PAD014594714	7
Office/computer paper and cardboard	NCB Commodities York, PA Fac. ID #: unpermitted	26
Bottom ash from coal fired steam generation	Ruth Buffington/General Hauling Spring Glen, PA Fac. ID #: unpermitted	2,012
Fly ash from coal fired steam generation	Reburned on-site with incoming coal	—
Waste hydraulic fluid	Remtech Environmental Lewisberry, PA Fac. ID #: PAD067098822	1
Off-spec water based resin and latex	Same as above	9
5% synthetic oil/95% water mixture	Same as above	39

TABLE 5-4 RESIDUAL WASTE DISPOSAL/RECYCLING		
Waste Description	**Receiving Facility**	**Quantity (Tons)**
Baghouse dust from machining of friction materials	Same as above	975
Waste asbestos, asbestos products, and baghouse dust containing asbestos	Same as above	17
Same as above	Lancaster Corporation Landfill Honey Brook, PA Fac. ID #: 100944	12
Grindings, shavings, etc. from on-site machine shop	Dixon Recyclers	10

The next Generator's Residual Waste Biennial Report is due March 1, 1995. According to site personnel, PADER has yet to send the required forms to the facility for completion.

6.0 FEDERAL REGULATORY RECORDS

6.1 Electronic Data Search

An electronic data search was obtained to gather information from federal databases. The electronic data search maps all the sites with potential or existing environmental liabilities. Federal databases were searched in accordance with ASTM Standard E-1527. Plotted sites are shown on the detail map presented in Figure 6-1. A copy of the electronic data search is included in Appendix D.

6.1.1 National Priorities List (NPL)

The NPL is the EPA's list of the most serious, uncontrolled or abandoned hazardous waste sites identified for possible long term remedial action under the Superfund Act. This list is based primarily on the following: (A) the score a site receives from the Hazard Ranking System; (B) whether it is chosen as a state's top priority site; or (C) whether it meets all three of the following criteria: (1) the U.S. Department of Health and Human Services issues a health advisory recommending that people be removed from the site to avoid exposures; (2) EPA determines that the site represents a significant threat; and (3) EPA determines that remedial action is more cost-effective than removal action.

The site is not on the NPL. In addition, no NPL sites have been found within a 1.125 mile radius of the site.

6.1.2 Comprehensive Environmental Response Compensation & Liability Index System (CERCLIS)

The CERCLIS List is a compilation of sites currently under investigation by the EPA for a release or threatened release of hazardous substances pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA - the Superfund Act).

Two sites were found within a one mile radius of the site. These two sites were identified on the Raymark property. These sites are listed below:

Name and Address	EPA ID #	Plot #/Letter
Raybestos-Manhattan, Inc. - Lagoon Building #70A Hostetter Road Manheim, Pennsylvania	PAD980539241	1
Raybestos-Manhattan Chiques Creek and Doe Run Creek Manheim, Pennsylvania	PAD003015328	A

6.1.3 Resource Conservation and Recovery Act (RCRA)

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA facilities database is a compilation of EPA permitted facilities that generate, store, transport, treat or dispose of hazardous waste.

Definitions of the Quantity of Hazardous Waste Generator Codes are:

LQG	=	Generators who generate at least 1,000 KG/MO of non-acutely hazardous waste or 1 KG/MO of acutely hazardous waste (large quantity generator)
SQG	=	Generators who generate 100 KG/MO but less than 1,000 KG/MO of non-acutely hazardous waste (small quantity generator)
CESQG	=	Generators who generate less than 100 KG/MO of non-acutely hazardous waste (conditionally exempt small quantity generator)
TSD	=	Transport, storage or disposal of hazardous waste

Ten RCRA sites were found within a ½ mile radius of the site. The Raymark site is included on this list as a LQG and a TSD.

Name and Address	EPA ID # and Generator Code	Plot #/Letter
Raybestos-Manhattan Chiques Creek and Doe Run Creek Manheim, Pennsylvania	PAD003015328 LQG and TSD	A
Frank M. Fairs Auto Body 135 South Oak Street Manheim, Pennsylvania	PAD982364929 SQG	5
Milton Fabrics, Inc. 123 S. Hazel Street Manheim, Pennsylvania	PAD047520002 SQG	6
Sauder Chevrolet 350 S. Main Street Manheim, Pennsylvania	PAD014356240 SQG	B8
Sunoco Service Station 315 S. Main Street Manheim, Pennsylvania	PAD000754234 SQG	B9
Phillips Ford, Inc. 300 S. Main Street Manheim, Pennsylvania	PAD071215560 SQG	C11
Gibbles Clete Auto Service 246 S. Main Street Manheim, Pennsylvania	PAD987395076 SQG	12
Quality Body Paint 440 S. Main Street Manheim, Pennsylvania	PAD987387081 SQG	D13
Hudson Car Sales 27 Eby Street Manheim, Pennsylvania	PAD009112202 SQG	D14
Metal Tech Auto Body 142 S. Wolf Street Manheim, Pennsylvania	PAD982363418 SQG	15

6.1.4 Emergency Response Notification System (ERNS)

ERNS is a national database containing information on reported releases of oil and hazardous substances. The information is compiled from the EPA, the U.S. Coast Guard, the National Response Center and the Department of Transportation. This search was done for the Raymark property only.

No reported releases were found for the Raymark site.

7.0 STATE REGULATORY RECORDS

7.1 Electronic Data Search

An electronic data search was obtained to gather information from state databases. The electronic search maps all the sites with potential or existing environmental liabilities. State databases were searched in accordance with ASTM Standard E-1527. Plotted sites are shown on the detail map presented in Figure 6-1. A copy of the electronic data search is included in Appendix D.

7.1.1 Storage Tanks

The PADER Division of Storage Tanks database was reviewed for registered storage tanks (aboveground and underground) within a ¼ mile radius of the site. The following facilities maintain registered storage tanks.

TABLE 7-1 REGISTERED TANKS

Facility ID	Location	No. of Tanks	Total Capacity (gallons)	Plot Number/ Letter
36-17061	Universal Friction Composites 123 E. Stiegel Street Manheim, PA	13 USTs 1 AST	149,925 550	A
36-23557	Sauder Chevrolet 350 S. Main Street Manheim, PA	1 UST	275	B7
36-20440	Sunoco Service Station 315 S. Main Street Manheim, PA	3 USTs	18,000	B9
36-07350	Phillips Ford Sales 300 S. Main Street Manheim, PA	2 ASTs	600	C10

TABLE 7-1 REGISTERED TANKS				
Facility ID	Location	No. of Tanks	Total Capacity (gallons)	Plot Number/ Letter
36-09050	Arthur J. Ulrich 10 New Charlotte Street Manheim, PA	2 USTs	30,000	16
36-61135	JL Honberger Company, Inc. Route 230 and 283 Bypass Manheim, PA	——	——	——
36-15026	Pennsylvania Pantry Route 72 Manheim, PA	——	——	——
36-01481	Longneckers Greenhouses 48 N. Oak Street Manheim, PA	——	——	——
36-60642	Jay N. Crouse Exc., Inc. 535 Stiegel Valley Road Manheim, PA	——	——	——

7.1.2 Leaky Underground Storage Tanks (LUSTs)

The PADER Division of Storage Tanks database was reviewed for confirmed releases from underground storage tanks within a one mile radius of the site. The following facility is on the LUST database:

West End Lawn
329 W. High Street — No information available
Manheim, Pennsylvania

7.1.3 State Hazardous Waste Sites (SHWS)

State hazardous waste site records are the states equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. The SHWS database was reviewed for SHWS sites within a 1.125 mile radius of the site.

No SHWS sites were found within the search radius.

7.1.4 Solid Waste Facility/Landfill Sites (SWF/LS)

Solid Waste Facility/Landfill Site records contain an inventory of solid waste disposal facilities or landfills in the state. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites. The PADER SWF/LS database was reviewed for SWF/LS sites within a one mile radius of the site.

The Raymark site is the only SWF/LS site on the database within the search radius:

Raymark Industries Landfill
123 Stiegel Street
Manheim, Pennsylvania
Facility ID: 300628

7.2 Pennsylvania Department of Environmental Resources (PADER) File Search

Site-specific files were reviewed at the PADER office located in Harrisburg, Pennsylvania. A list of files reviewed at the PADER office is included in Appendix E.

7.2.1 Air Permits

Limited files on air emission permits were available at PADER. More detailed information on air permits is included in Section 5.1.

PADER Compliance Inspection

PADER inspected Universal Friction Components (UFC) on July 26, 1994 for compliance of air permits. Additional information related to specific processes was requested by PADER. UFC verbally responded to PADER following the receipt of the inspection report and supplied the requested information.

7.2.2 Hazardous Waste

A review of the PADER files indicated that an Administrative Order (AO) was issued by PADER to Raymark dated April 26, 1990 for unlawful disposal of solid and hazardous wastes in violation of the solid waste laws and regulations. The AO was issued with regard to the landfill owned and operated by Raymark. The AO ordered that Raymark cease continued use of the landfill and submit the following: a closure plan; certification of insurance coverage; a plan for lawful removal of all accumulated baghouse dust present at the landfill; and proof of completion of each previous task. The April 26, 1990 AO superseded PADER's July 31, 1989 AO.

A copy of a PADER Quarterly Hazardous Waste Report for Raymark Friction Company, EPA ID No. PAD003015328, was on file at PADER. The report was for the quarter ending June 30, 1993. The following materials were shipped off-site as hazardous waste:

TABLE 7-2 HAZARDOUS WASTES

Material	Haz Waste Number	TSD Facility	Weight (lbs)
RQ waste flammable liquid (waste rubber emulsion-toluene)	F005 D001	REMTECH Environmental Lewisberry, Inc. 550 Industrial Drive Lewisberry, PA	4,400
RQ waste flammable liquid (off spec synthetic resin)	F005 D001	REMTECH	400
Waste petroleum naphtha combustible liquid-waste cleaning solvent	D001 D039	Safety-Kleen Corporation 1140-1142 Greenhill Road Westchester, PA	838
RQ waste petroleum naphtha combustible liquid N.O.S.-waste cleaning solvent	D001 D039	Safety-Kleen Corporation Westchester, PA	858
RQ waste flammable liquid (waste cloth and tape treating emulsion-toluene, methyl ethyl ketone and isopropyl alcohol	F005 D001	Safety-Kleen Corporation 1200 Sylvan Street Linden, NJ	1,200
RQ waste oil, combustible liquid (waste hydraulic oil)	D001	Safety-Kleen Corporation Linden, NJ	3,200

Quarterly Hazardous Waste Reports are due every quarter. No other updated reports were found on file at PADER.

7.2.3 Storage Tanks

The following table lists the facility's registered storage tanks on file at PADER. The storage tanks are registered to Raymark Industries, Inc., 75 East Main Street, Stratford, Connecticut.

TABLE 7-5 ON-SITE REGISTERED TANKS			
Tank No.	Installed	Capacity (gallons)	Substance Stored
001	1/1/66	8,000	Hazardous substance (isopropanol)
002	1/1/43	12,000	Hazardous substance (toluene)
003	1/1/81	12,000	Other (#2 fuel oil)
003A	1/1/75	550	Gasoline
004	1/1/40	1,000	Gasoline
005	1/1/43	9,925	Hazardous substance (toluene)
006	1/1/40	12,000	Mixture (toluene/heptane)
007	1/1/40	12,000	Hazardous substance (heptane)
008	1/1/75	20,000	Hazardous substance (heptane)
009	1/1/60	8,000	Hazardous substance (isopropanol)
010	4/1/61	8,000	Other (#2 fuel oil)
011	1/1/78	20,000	Other (thinner #2)
012	2/1/77	25,000	Other (#2 fuel oil)
013	1/1/43	2,000	Hazardous substance (isopropanol)

Notes:

- According to the PADER files, Tank No. 003A is an aboveground storage tank. All other tanks are underground storage tanks.

- According to the PADER files, two other aboveground storage tanks (001A and 002A) were removed in 1972 and are no longer on PADER's list of regulated storage tanks. It should be noted that, based upon Raymark records, these two tanks were removed as a result of the 1972 flood. Tank No. 001A (9,000 gallons) contained #5 oil and Tank No. 002A (5,000 gallons) contained #2 fuel oil.

7.2.4 Solid Waste/Landfill

Raymark Industries, Inc. operated on-site landfill for over fifty years to store industrial plant waste including finishing dust, off-specification products, scraps, cement waste and alcohol wastes. The landfill was permitted by PADER on July 14, 1977 (Permit No. 3006289) and ceased receiving waste on March 13, 1987.

Raymark submitted a closure plan for the landfill to PADER on April 24, 1987. In March 1991, a consent order and adjudication was negotiated between PADER and Raymark. A final closure plan dated April 1992 was prepared and submitted to PADER. The closure plan was approved by PADER in July 1992. The recommended closure alternative and post closure tasks are discussed in further detail in Section 3.1.

The landfill was inspected by PADER on August 16, 1994. PADER noted on the Hazardous Waste Inspection Report for TSD Facilities - Landfills that the approved closure plan was yet to be implemented at the landfill. PADER noted exposed wastes on sections of the landfill and that the existing asphalt cap was in need of repair. PADER cited violations for non-compliance in the following areas:

- Runoff collection system not properly designated, constructed, operated and maintained.
- Facility not managed to prevent wind dispersal of hazardous waste.
- Closure and post-closure requirements not complied with.

7.2.5 Stormwater Management

No stormwater related files were reviewed at PADER. A discussion of stormwater management at the site is included in Section 3.3.

7.2.6 Surface Water

Reports and correspondence related to sampling and monitoring of Doe Run Creek were reviewed at PADER. The information at PADER was consistent with the information discussed in Section 3.4. A more detailed discussion of environmental issues related to Doe Run Creek is included in Section 3.4.1.

7.2.7 Groundwater Monitoring

As part of the facilities landfill closure plan, PADER requires that groundwater at the landfill be monitored on a quarterly basis. Monitoring of groundwater at the landfill has been performed since November 1981. Groundwater monitoring is discussed in detail in Section 3.2.

7.2.8 Waste Handling/Disposal

Residual Waste

Information related to residual waste generation was not reviewed at PADER. This information is discussed in Section 5.4.

Baghouse Dust Removal

In a letter dated November 7, 1990 to Raymark from PADER, PADER asks for the submission of a plan for removal of baghouse dust pursuant to Paragraph 4 of PADER's April 26, 1990 Order. The letter also references an agreement between Raymark and PADER as set forth in a letter to Raymark's attorney, Carl B. Schultz, Esq., dated May 18, 1990. Neither the April 26, 1990 Order or the May 18, 1990 letter were found in the PADER files.

According to Raymark personnel, the November 7, 1990 letter is in reference to the stockpiling of baghouse dust at the facility's closed landfill. The baghouse dust was placed in one cubic yard bags and stored on the landfill cap. In response to PADER, Raymark reportedly shipped the stockpiled bags of baghouse dust (8,000,000 pounds total) to GSX Landfill in South Carolina.

Residual Waste Impoundment Notification

Raymark received a letter from PADER dated August 9, 1994 asking that Raymark complete a Residual Waste Impoundment Notification (Form T3) for having one or more residual waste impoundments. An impoundment is defined as a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (or lined with synthetic materials) which is designed to hold an accumulation of liquid wastes or wastes containing free liquids. The term includes holding, storage, treatment, settling and aeration pits, ponds and lagoons.

According to Raymark site personnel, no such impoundments exist on-site and the PADER letter was passed on to the corporate office in Stamford, Connecticut for further action.

8.0 LOCAL RECORDS

8.1 Manheim Fire Department

Mr. Richard Hauser of Hope Fire Company No. 1 indicated that Raymark did not have any recent reported spills, leaks or releases.

8.2 Manheim Sewer/Water Department

Mr. Jim Williams, Borough Manager, indicated that a sanitary sewer line runs through the Raymark property to the northwest of the former landfill. Additionally, Raymark has a site-specific sanitary sewer discharge permit which allows Raymark to discharge processed wastewater into the sanitary sewer, as long as the wastewater meets the discharge criteria set forth in the permit. According to Mr. Williams, Raymark had phenols and copper excursions in the early 1990's, but since then they have had no problems in meeting discharge requirements.

8.3 Manheim Building Inspector

Mr. Rob Stoner, Building Inspector, indicated that there are no outstanding violations at the Raymark facility.

9.0 ASBESTOS SURVEY

An asbestos survey was performed at the Raymark facility in April 1995. Materials were classified as either surfacing materials, thermal system insulation (TSI) or miscellaneous materials (roofing material, window caulking, cloth flex connectors, ceiling tiles, ceiling tile glue, transite hoods and labtops, and flooring materials and mastics) in accordance with EPA's Asbestos Hazard Emergency Response Act (AHERA). Materials within each building (buildings with common foundations and floors were grouped together) were homogenized according to classification. A copy of the asbestos survey report is included as Appendix F. Table 9-1 is a summary of the results of the asbestos survey:

TABLE 9-1 ASBESTOS SURVEY RESULTS			
Building	**Surfacing Materials**	**TSI**	**Miscellaneous**
Admin. Building #77	NEG	AP	AP*
Lab. Building #4	NEG	AP	AP*
Admin. Building #7	NEG	AP	AP*
Admin. Building #28	NEG	AP	AP*
Building #49	AP	AP	AP*
Building #27	AP	AP	AP*
Building #28	AP	AP	AP*
Boiler House Building #58	POS	POS	POS

Notes:

NEG = Negative for asbestos
AP = Assumed positive for asbestos
POS = Positive for asbestos
* = The following miscellaneous materials tested positive for asbestos: cloth flex connectors, ceiling tile glue, floor tiles and linoleum.

10.0 FINDINGS

This environmental site evaluation identified a number of environmental issues that were either found during the site reconnaissance or as part of the file research. The findings are presented as follows:

Tanks

- The number of tanks (USTs and ASTs) identified during the site walkover did not match the number of tanks registered on file with PADER or those identified by Raymark records and interviewed Raymark personnel. A total of thirteen tanks are listed in the PADER registry; however, twenty-nine were identified during the site walkover.

- The ages of most of the tanks exceed the typical twenty year life expectancy for tanks.

- The 12,000 gallon solvent recovery tank had a reported pipe leak during a 1990 tank tightness test. Raymark undertook additional studies (including a soil gas survey) to evaluate and confirm the release and evaluate potential impacts on soil.

- Based on facility records, an AST ruptured in Building 36 in the late 1980's. The spilled resin dried and hardened, and is still present, but poses no environmental threat.

Spills/Releases

- Soils are stained west of Building 74. This area is located between the concrete wall and the grassy area adjacent to the oil/water separator. The stains may be related to spills and/or leakage from one or all of the following:

  - The AST (unlabeled red metal tank) present in the same location.

  - The dry well outside the compressor which is pumped either to the red AST (for oils/greases) or the sewer (for liquids).

- The Raymark site personnel interviewed describe several former spills (such as machine lubricants). However, no records or data were available to review.

- Fly ash was deposited on the northern landfill and in an area northwest of the wetland.

- Limited data was available prior to the 1960's related to material handling, storage or releases on the lower facility.

- Minor hydraulic leaks were detected beneath some equipment. Several of these leaks were covered with speedy dry or absorbent pads.

- Floor drains were sealed with concrete in the 1970's. No data was available concerning potential releases from these floor drains prior to the 1970's.

Landfills

- The asphalt cap on the northern landfill has deteriorated in some locations. Cracked surfaces and depressions were present which collected runoff and resulted in ponding.

- Monitoring wells were observed at the northern landfill; however, none were noted in the southern landfill.

- Friction manufacturing products were observed along the northeasterly slope of the landfill.

- The earthen cover on the southern landfill was vegetated.

- Wooden pallets and debris piles and fly ash were noted on the landfill and in an area northwest of the wetland.

Chiques Creek/Doe Run Creek

- No visual discoloration or turbidity was observed during the time of the site walkover at either Chiques Creek or Doe Run Creek in the vicinity of Raymark's stormwater/non-contact cooling water discharge.

- Lead in sediment and water temperature were issues that concerned PADER in Doe Run Creek. Raymark was required to perform a "Macroinvertebrate Survey." The latest draft report of this survey indicates that off-site potential sources may be contributing to the suppression of biota in the creek. Temperature monitoring is being conducted by Raymark.

Asbestos

- Asbestos is present at the facility in asbestos containing materials (ACM), as well as in raw product form. Considering the age of the buildings (ranging from the 1910's through 1970's), it can be assumed that asbestos materials were used in construction materials. The raw asbestos product had been used in the past and continues to be used in friction products.

Regulatory Review

Based upon the review of the regulatory files (obtained from PADER, Manheim Borough and the Raymark facility), the following environmental issues were identified:

- Raymark's RACT proposal to reduce VOC emissions from the facility is scheduled to begin in 1997. The federal mandate for implementation of the RACT proposal is May 31, 1995. PADER has advised Raymark that the federal mandate will be held.

- According to a PADER hazardous waste inspection report completed during a PADER inspection of the landfill, the approved landfill closure plan has not yet been implemented.

- The Biennial Generator's Residual Waste Report is due to be submitted to PADER for years 1993 and 1994.

- The SARA Title III, Section 3013 reporting for 1994 is due.

- Quarterly Monitoring - the latest quarterly monitoring was conducted in 1994. The 1995 first quarter round has not been conducted.